CLAIMS :

1.   A coding method for coding digital video data available in the form of a video stream consisting of consecutive frames divided into macroblocks, said frames being coded in the form of at least I-frames, independently coded, or P-frames, temporally disposed between said I-frames and predicted from at least a previous I- or P-frame, or B-frames, temporally disposed between an I-frame and a P-frame, or between two P-frames, and bidirectionally predicted from at least these two frames between which they are disposed, said predictions of P- and B-frames being performed by means of a weighted prediction with unequal amount of prediction from the past and the future, said coding method comprising the following steps :

    - a structuring step, provided for capturing, for all the successive macroblocks of the current frame, related coding parameters characterizing, if any, said weighted prediction ;

    - a computing step, for delivering, for said current frame, statistics related to said parameters ;

    - an analyzing step, provided for analyzing said statistics and determining a change of preference regarding the direction of prediction ;

    - a detecting step, provided for detecting the occurrence of a gradual scene change in the sequence of frames each time a change of preference has been determined ;

    - a description step, provided for generating description data of said occurrences of gradual scene changes ;

    - a coding step, provided for encoding the description data thus obtained and the original digital video data.

2.   An encoding device for coding digital video data available in the form of a video stream consisting of consecutive frames divided into macroblocks, said frames being coded in the form of at least I-frames, independently coded, or P-frames, temporally disposed between said I-frames and predicted from at least a previous I- or P-frame, or B-frames, temporally disposed between an I-frame and a P-frame, or between two P-frames, and bidirectionally predicted from at least these two frames between which they are disposed, said predictions of P- and B-frames being performed by means of a weighted prediction with unequal amount of prediction from the past and the future, said encoding device comprising :

- structuring means, provided for capturing, for all the successive macroblocks of the current frame, related coding parameters characterizing, if any, said weighted prediction ;

- computing means, for delivering, for said current frame, statistics related to said parameters ;

- analyzing means, provided for analyzing said statistics and determining a change of preference regarding the direction of prediction ;

- detecting means, provided for detecting the occurrence of a gradual scene change in the sequence of frames each time a change of preference has been determined ;

- description means, provided for generating description data of said occurrences of gradual scene changes ;

- coding means, provided for encoding the description data thus obtained and the original digital video data.

3.   For use in an encoding device provided for coding digital video data available in the form of a video stream consisting of consecutive frames divided into macroblocks, said frames being coded in the form of at least I-frames, independently coded, or P-frames, temporally disposed between said I-frames and predicted at least from a previous I- or P-frame, or B-frames, temporally disposed between an I-frame and a P-frame, or between two P-frames, and bidirectionally predicted from at least these two frames between which they are disposed, said predictions of P- and B-frames being performed by means of a weighted prediction with unequal amount of prediction from the past and the future, computer-executable process steps provided to be stored on a computer-readable storage medium and comprising the following steps :

- a structuring step, provided for capturing, for all the successive macroblocks of the current frame, related coding parameters characterizing, if any, said weighted prediction ;

- a computing step, for delivering, for said current frame, statistics related to said parameters ;

- an analyzing step, provided for analyzing said statistics and determining a change of preference regarding the direction of prediction ;

- a detecting step, provided for detecting the occurrence of a gradual scene change in the sequence of frames each time a change of preference has been determined ;

- a description step, provided for generating description data of said occurrences of gradual scene changes ;

- a coding step, provided for encoding the description data thus obtained and the original digital video data.

4.   A computer program product for a digital video data encoding device, comprising a set of instructions which when loaded into said encoding device lead it to carry out the steps as claimed in claim 3.

5.   A transmittable coded signal produced by encoding digital video data according to a coding method as claimed in claim 1.